434. The method according to claim 433, wherein the salt solution has an ionic strength sufficient to overcome at least partially the electrostatic attraction or repulsion of the oligonucleotides for the nanoparticles and the electrostatic repulsion of the oligonucleotides for each other.

435. The method of Claim 433 wherein the nanoparticles are metal nanoparticles or semiconductor nanoparticles.

436. The method of Claim 435 wherein the nanoparticles are gold nanoparticles.

437. The method of Claim 436 wherein the oligonucleotides include a moiety comprising a functional group which can bind to a nanoparticle.

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438. The method of Claim 433 wherein all of the salt is added to the water in a single addition.

439. The method of Claim 433 wherein the salt is added gradually over time.

440. The method of Claim 433 wherein the salt is selected from the group consisting of sodium chloride, magnesium chloride, potassium chloride, ammonium chloride, sodium acetate, ammonium acetate, a combination of two or more of these salts, one of these salts in a phosphate buffer, and a combination of two or more these salts in a phosphate buffer.

441. The method of Claim 440 wherein the salt is sodium chloride in a phosphate buffer.

442. The method of any one of Claims 407, 412, or 416 wherein the oligonucleotides present on surface of the nanoparticles at a surface density of at least 10 picomoles/cm^2.

443. The method of Claim 442 wherein the oligonucleotides are present on surface of the nanoparticles at a surface density of at least 15 picomoles/cm^2.

444. The method of Claim 443 wherein the oligonucleotides are present on surface of the nanoparticles at a surface density of from about 15 picomoles/cm^2 to about 40 picomoles/cm^2. - -